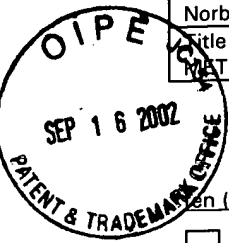


PCT
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TRANSMITTAL LETTER				Case No. 56/372
Int'l Pat. App. No. PCT/EP00/09232	U.S. Serial No. 10/089,321	Int'l Filing Date September 21, 2000	U.S. Filing Date March 22, 2002	Examiner Unassigned
Inventor(s) Norbert Kerner				
Title of Invention METHOD FOR DETERMINING TIME CONSTANTS OF A REFERENCE MODEL IN A CASCADE CONTROLLING CIRCUIT				

TO THE COMMISSIONER FOR PATENTS

Transmitted herewith is Transmittal Letter (in duplicate); Information Disclosure Statement; PTO 1449; along with
ten (10) cited references; Postcard Evidencing Receipt.

- ☐ Small entity status of this application under 37 CFR § 1.27 has been established by verified statement previously submitted.
- ☐ A verified statement to establish small entity status under 37 CFR §§ 1.9 and 1.27 is enclosed.
- ☐ Petition for a _____ month extension of time.
- ☒ No additional fee is required.
- ☐ The fee has been calculated as shown below:

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	Claims Remaining After Amendment		Highest No. Previously Paid For	Present Extra
Total		Minus		
Indep.		Minus		
First Presentation of Multiple Dep. Claim				

Small Entity	
Rate	Add'l Fee
x \$9 =	
x 42 =	
+ \$140 =	
Total add'l fee	\$

Other Than Small Entity	
Rate	Add'l Fee
x \$18 =	
x \$84 =	
+ \$280 =	
Total add'l fee	\$

- ☐ Please charge Deposit Account No. 23-1925 (BRINKS HOFER GILSON & LIONE) in the amount of \$_____. A duplicate copy of this sheet is enclosed.
- ☐ A check in the amount of \$_____ to cover the filing fee is enclosed.
- ☒ The Commissioner is hereby authorized to charge payment of any additional filing fees required under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17 associated with this communication or credit any overpayment to Deposit Account No. 23-1925. A duplicate copy of this sheet is enclosed.
- ☒ I hereby petition under 37 CFR § 1.136(a) for any extension of time required to ensure that this paper is timely filed. Please charge any associated fees which have not otherwise been paid to Deposit Account No. 23-1925. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

John C. Freeman

John C. Freeman
 Registration No. 34,483
 Attorney for Applicant

BRINKS HOFER GILSON & LIONE
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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231, on September 11, 2002.

Date: September 11, 2002 Signature: *John C. Freeman*



I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to:
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D.C. 20231 on September 11, 2002

#5

Name of Registered Representative:

John C. Freeman, Reg. No. 34,483

September 11, 2002
Date of Signature

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PATENT
CASE NO. 56/372

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application:)

Norbert Kerner)

Group Art Unit: unassigned

International Patent Application)
No. PCT/EP00/09232)

International Filing)
Date: September 21, 2000)

U.S. Patent Application)
Serial No.: 10/089,321)

Filed: March 22, 2002)

Examiner: unassigned

For: METHOD FOR DETERMINING)
TIME CONSTANTS OF A)
REFERENCE MODEL IN A)
CASCADE CONTROLLING)
CIRCUIT)

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

In compliance with Applicant's duty of disclosure under 37 C.F.R. § 1.56 and in

conformance with 37 C.F.R. §§ 1.97-1.98, Applicant hereby submits the following references for consideration by the Examiner. Copies of the references are enclosed along with a completed copy of Form PTO-1449.

I. DISCLOSURE

A. U.S. Patents

<u>Patent No.</u>	<u>Inventor</u>	<u>Issue Date</u>
4,549,123	Hagglund et al.	10/22/85
4,903,192	Saito et al.	02/20/90
5,157,597	Iwashita	10/20/92
6,127,793	Kerner	10/03/00
6,274,995	Kerner	08/14/01

B. Foreign Patents

<u>Reference No.</u>	<u>Country</u>	<u>Pub. Date</u>
38 11 086	W. Germany	10/20/88
0 896 263	EP	02/10/99
WO 00/22485	WIPO	04/20/00

C. Literature

1. Michael G. Ott et al., "Auto-Tuning: From Ziegler-Nichols to Model Based Rules," Advances in Instrumentation and Control, Instrument Society of America, Vol. 50, No. Part 2, 1999, pp. 323-332.
2. Peter Ernst et al., "Optimierte Achsregelungen Mit Durchgangin Offenen CNC-Steuerungen," ISW Position Controlling Seminar 1999, Vol. 26, March 27, 1999, pp. 1-30.

II. DISCUSSION

A. U.S. Patent No. 4,549,123

The '123 patent was designated as an X-type reference in Patent Cooperation Treaty Patent Application PCT/EP00/09232, which is a foreign counterpart of the above-mentioned application. An X-type reference is deemed to be particularly relevant if taken alone.

B. U.S. Patent No. 5,157,597

The '597 patent was designated as an A-type reference in Patent Cooperation Treaty Patent Application PCT/EP00/09232, which is a foreign counterpart of the above-mentioned application. An A-type reference is deemed to describe the technological background and is not pertinent to patentability.

C. German Reference No. 38 11 086

Based solely on the drawings and the attached English language Abstract, the '086 reference is pertinent because it appears to disclose a PID regulator that monitors variables and determines when an error exceeds a threshold. It is believed that U.S. Patent No. 4,903,192 is the English language equivalent of the '086 reference.

The '086 reference was designated as an A-type reference in Patent Cooperation Treaty Patent Application PCT/EP00/09232, which is a foreign counterpart of the above-mentioned application.

D. European Reference No. 0 896 263

Based solely on the drawings and the attached English language Abstract, the '263 reference is pertinent because it appears to disclose an evaluation method that provides regulation parameters using special test signals where parameters are adjusted until an optimal regulation

characteristic is obtained. It is believed that U.S. Patent No. 6,127,793 is the English language equivalent of the '263 reference.

The '263 reference was designated as an A-type reference in Patent Cooperation Treaty Patent Application PCT/EP00/09232, which is a foreign counterpart of the above-mentioned application.

E. WIPO Reference No. WO 00/22485

Based solely on the drawings and the attached English language Abstract, the '485 reference is pertinent because it appears to disclose a control method that uses a filter group that is used to compute parameters to detect the onset of stability. It is believed that U.S. Patent No. 6,274,995 is the English language equivalent of the '485 reference.

The '485 reference was designated as a P-type and an A-type reference in Patent Cooperation Treaty Patent Application PCT/EP00/09232, which is a foreign counterpart of the above-mentioned application.

F. Ott et al. Article

The Ott et al. Article was designated as an X-type reference in Patent Cooperation Treaty Patent Application PCT/EP00/09232, which is a foreign counterpart of the above-mentioned application.

G. Ernst et al. Article

The pertinence of the Ernst et al. Article is described on page 1 of Applicant's specification.

III. CONCLUSION

It is believed that none of these references, alone or in combination, disclose or suggest

the invention claimed. However, Applicant wishes to make it clear that the disclosure of the above references is in no way an admission that they qualify as prior art. It is Applicant's desire, however, to have these references available in the record for both the Examiner and the public to see. Applicant therefore requests that the Examiner review the entire disclosure of each reference and make the above-listed references of record.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'J.C. Freeman', written in a cursive style.

John C. Freeman
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Attorney for Applicant

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